

## INFORMATION DISCLOSURE STATEMENT

Applicant : Sampsell, Jeffrey Brian  
App. No : 10/731,989  
Filed : December 9, 2003  
For : AREA ARRAY MODULATION AND  
LEAD REDUCTION IN  
INTERFEROMETRIC MODULATORS  
Examiner : Choi, William C.  
Art Unit : 2873

## CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

May 13, 2005  
(Date)

Mr. Abumeri  
Mark M. Abumeri, Reg. No. 43,458

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application is an Information Disclosure Statement by Applicant (PTO/SB/08 equivalent) listing 215 references to be considered by the Examiner, which includes 3 foreign patent references and 5 non-patent literature references. Hardcopies of the 8 foreign and non-patent literature references are enclosed herewith.

This Information Disclosure Statement is being filed before the mailing date of a final action and before the mailing of a Notice of Allowance. This Statement is accompanied by the fees set forth in 37 C.F.R. § 1.17(p). The Commissioner is hereby authorized to charge any additional fees which may be required or to credit any overpayment to Account No. 11-1410.

05/17/2005 WASFAW1 00000015 10731989

01 FC:1806

180.00 DP

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 13, 2005

By: Mr. Abumeri

Mark M. Abumeri  
Registration No. 43,458  
Attorney of Record  
Customer No. 20,995  
(619) 235-8550

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary)

SHEET 1 OF 8

Application No.	10/731,989
Filing Date	December 9, 2003
First Named Inventor	Sampsell, Jeffrey Brian
Art Unit	2873
Examiner	Choi, William C.
Attorney Docket No.	IRDM.129A

## U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1	4,392,711	07-12-1983	Moraw et al.	
	2	4,441,791	04-10-1984	Hornbeck	
	3	4,459,182	07-10-1984	te Velde	
	4	4,482,213	11-13-1984	Piliavin et al.	
	5	4,500,171	02-19-1985	Penz et al.	
	6	4,566,935	01-28-1986	Hornbeck	
	7	4,571,603	02-18-1986	Hornbeck et al.	
	8	4,596,992	06-24-1986	Hornbeck	
	9	4,615,595	10-07-1986	Hornbeck	
	10	4,662,746	05-05-1987	Hornbeck	
	11	4,710,732	12-01-1987	Hornbeck	
	12	4,856,863	08-15-1989	Sampsell et al.	
	13	4,857,978	08-15-1989	Goldburt et al.	
	14	4,900,136	02-13-1990	Goldburt et al.	
	15	4,900,395	02-13-1990	Syverson et al.	
	16	4,954,789	09-04-1990	Sampsell	
	17	4,956,619	09-11-1990	Hornbeck	
	18	4,965,562	10-23-1990	Verhulst	
	19	5,018,256	05-28-1991	Hornbeck	
	20	5,028,939	07-02-1991	Hornbeck et al.	
	21	5,037,173	08-06-1991	Sampsell et al.	
	22	5,061,049	10-29-1991	Hornbeck	
	23	5,079,544	01-07-1992	DeMond et al.	
	24	5,083,857	01-28-1992	Hornbeck	
	25	5,096,279	03-17-1992	Hornbeck et al.	
	26	5,099,353	03-24-1992	Hornbeck	
	27	5,142,405	08-25-1992	Hornbeck	
	28	5,142,414	08-25-1992	Koehler	
	29	5,162,787	11-10-1992	Thompson et al.	

Examiner Signature

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U.S. PATENT DOCUMENTS					
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	30	5,170,156	12-08-1992	DeMond et al.	
	31	5,172,262	12-15-1992	Hornbeck	
	32	5,179,274	01-12-1993	Sampsell	
	33	5,192,395	03-09-1993	Boysel et al.	
	34	5,192,946	03-09-1993	Thompson et al.	
	35	5,206,629	04-27-1993	DeMond et al.	
	36	5,214,419	05-25-1993	DeMond et al.	
	37	5,214,420	05-25-1993	Thompson et al.	
	38	5,216,537	06-01-1993	Hornbeck	
	39	5,226,099	07-06-1993	Mignardi et al.	
	40	5,228,013	07-13-1993	Bik	
	41	5,233,385	08-03-1993	Sampsell	
	42	5,233,456	08-03-1993	Nelson	
	43	5,254,980	10-19-1993	Hendrix et al.	
	44	5,272,473	12-21-1993	Thompson et al.	
	45	5,278,652	01-11-1994	Urbanus et al.	
	46	5,280,277	01-18-1994	Hornbeck	
	47	5,287,096	02-15-1994	Thompson et al.	
	48	5,293,272	03-08-1994	Jannson et al.	
	49	5,296,950	03-22-1994	Lin et al.	
	50	5,305,640	04-26-1994	Boysel et al.	
	51	5,312,513	05-17-1994	Florence et al.	
	52	5,323,002	06-21-1994	Sampsell et al.	
	53	5,324,683	06-28-1994	Fitch et al.	
	54	5,325,116	06-28-1994	Sampsell	
	55	5,326,430	07-05-1994	Cronin et al.	
	56	5,327,286	07-05-1994	Sampsell et al.	
	57	5,331,454	07-19-1994	Hornbeck	
	58	5,339,116	08-16-1994	Urbanus et al.	

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	59	5,355,357	10-11-1994	Yamamori et al.	
	60	5,358,601	10-25-1994	Cathey	
	61	5,365,283	11-15-1994	Doherty et al.	
	62	5,411,769	05-02-1995	Hornbeck	
	63	5,444,566	08-22-1995	Gale et al.	
	64	5,446,479	08-29-1995	Thompson et al.	
	65	5,448,314	09-05-1995	Heimbuch et al.	
	66	5,452,024	09-19-1995	Sampsell	
	67	5,454,906	10-03-1995	Baker et al.	
	68	5,457,493	10-10-1995	Leddy et al.	
	69	5,457,566	10-10-1995	Sampsell et al.	
	70	5,459,602	10-17-1995	Sampsell	
	71	5,461,411	10-24-1995	Florence et al.	
	72	5,489,952	02-06-1996	Gove et al.	
	73	5,497,197	03-05-1996	Gove et al.	
	74	5,499,062	03-12-1996	Urbanus	
	75	5,506,597	04-09-1996	Thompson et al.	
	76	5,515,076	05-07-1996	Thompson et al.	
	77	5,517,347	05-14-1996	Sampsell	
	78	5,523,803	06-04-1996	Urbanus et al.	
	79	5,526,051	06-11-1996	Gove et al.	
	80	5,526,172	06-11-1996	Kanack	
	81	5,526,327	06-11-1996	Cordova, Jr.	
	82	5,526,688	06-18-1996	Boysel et al.	
	83	5,535,047	07-09-1996	Hornbeck	
	84	5,548,301	08-20-1996	Kornher et al.	
	85	5,551,293	09-03-1996	Boysel et al.	
	86	5,552,924	09-03-1996	Tregilgas	
	87	5,552,925	09-03-1996	Worley	

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SHEET 4 OF 8	Attorney Docket No.	IRD.M.129A

U.S. PATENT DOCUMENTS					
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	88	5,559,358	09-24-1996	Burns et al.	
	89	5,563,398	10-08-1996	Sampsell	
	90	5,567,334	10-22-1996	Baker et al.	
	91	5,570,135	10-29-1996	Gove et al.	
	92	5,581,272	12-03-1996	Conner et al.	
	93	5,583,688	12-10-1996	Hornbeck	
	94	5,589,852	12-31-1996	Thompson et al.	
	95	5,597,736	01-28-1997	Sampsell	
	96	5,600,383	02-04-1997	Hornbeck	
	97	5,602,671	02-11-1997	Hornbeck	
	98	5,606,441	02-25-1997	Florence et al.	
	99	5,608,468	03-04-1997	Gove et al.	
	100	5,610,438	03-11-1997	Wallace et al.	
	101	5,610,624	03-11-1997	Bhuva	
	102	5,610,625	03-11-1997	Sampsell	
	103	5,619,365	04-08-1997	Rhoades et al.	
	104	5,619,366	04-08-1997	Rhoads et al.	
	105	5,629,790	05-13-1997	Neukermans et al.	
	106	5,636,185	06-03-1997	Brewer et al.	
	107	5,646,768	07-08-1997	Kaeiyama	
	108	5,650,881	07-22-1997	Hornbeck	
	109	5,654,741	08-05-1997	Sampsell et al.	
	110	5,657,099	08-12-1997	Doherty et al.	
	111	5,659,374	08-19-1997	Gale, Jr. et al.	
	112	5,665,997	09-09-1997	Weaver et al.	
	113	5,673,139	09-30-1997	Johnson	
	114	5,683,591	11-04-1997	Offenberg	
	115	5,726,480	03-10-1998	Pister	
	116	5,745,193	04-28-1998	Urbanus et al.	

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	117	5,745,281	04-28-1998	Yi et al.	
	118	5,771,116	06-23-1998	Miller et al.	
	119	5,784,212	07-21-1998	Hornbeck	
	120	5,793,504	08-11-1998	Stoll	
	121	5,808,780	09-15-1998	McDonald	
	122	5,818,095	10-06-1998	Sampsell	
	123	5,842,088	11-24-1998	Thompson	
	124	5,912,758	06-15-1999	Knipe et al.	
	125	5,943,158	08-24-1999	Ford et al.	
	126	6,028,690	02-22-2000	Carter et al.	
	127	6,038,056	03-14-2000	Florence et al.	
	128	6,049,317	04-11-2000	Thompson et al.	
	129	6,061,075	05-09-2000	Nelson et al.	
	130	6,099,132	08-08-2000	Kaeriyama	
	131	6,100,872	08-08-2000	Aratani et al.	
	132	6,113,239	09-05-2000	Sampsell et al.	
	133	6,147,790	11-14-2000	Meier et al.	
	134	6,158,156	12-12-2000	Patrick, David	
	135	6,160,833	12-12-2000	Floyd et al.	
	136	6,180,428	01-30-2001	Peeters et al.	
	137	6,201,633	03-13-2001	Peeters et al.	
	138	6,232,936	05-15-2001	Gove et al.	
	139	6,243,149	06-05-2001	Swanson et al.	
	140	6,282,010	08-28-2001	Sulzbach et al.	
	141	6,295,154	09-25-2001	Laor et al.	
	142	6,323,982	11-27-2001	Hornbeck	
	143	6,335,831	01-01-2002	Kowarz et al.	
	144	6,355,831	03-12-2002	Kowarz et al.	
	145	6,407,851	06-18-2002	Islam et al.	

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	146	6,447,126	09-10-2002	Hornbeck	
	147	6,465,355	10-15-2002	Horsley	
	148	6,466,358	10-15-2002	Tew	
	149	6,473,274	10-29-2002	Maimone et al.	
	150	6,480,177	11-12-2002	Doherty et al.	
	151	6,496,122	12-17-2002	Sampsell	
	152	6,545,335	04-08-2003	Chua et al.	
	153	6,548,908	04-15-2003	Chua et al.	
	154	6,549,338	04-15-2003	Wolverton et al.	
	155	6,552,840	04-22-2003	Knipe	
	156	6,600,201	07-29-2003	Hartwell et al.	
	157	6,606,175	08-12-2003	Sampsell et al.	
	158	6,625,047	09-23-2003	Coleman, Jr., deceased	
	159	6,630,786	10-07-2003	Cummings et al.	
	160	6,632,698	10-14-2003	Ives	
	161	6,643,069	11-04-2003	Dewald	
	162	6,666,561	12-23-2003	Blakley	
	163	6,674,033	01-06-2004	Chui et al.	
	164	6,674,090	01-06-2004	Chua et al.	
	165	6,741,384	05-25-2004	Martin et al.	
	166	6,741,503	05-25-2004	Farris et al.	
	167	6,747,785	06-08-2004	Chen et al.	
	168	6,775,174	08-10-2004	Huffman et al.	
	169	6,778,155	08-17-2004	Doherty et al.	
	170	6,811,267	11-02-2004	Allen et al.	
	171	6,819,469	11-16-2004	Koba	
	172	6,822,628	11-23-2004	Dunphy et al.	
	173	6,829,132	12-07-2004	Martin et al.	
	174	6,853,129	02-08-2005	Cummings et al.	

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	175	6,855,610	02-15-2005	Tung et al.	
	176	6,859,218	02-22-2005	Luman et al.	
	177	6,861,277	03-01-2005	Monroe et al.	
	178	6,862,022	03-01-2005	Slupe	
	179	6,862,029	03-01-2005	D'Souza et al.	
	180	6,870,581	03-22-2005	Li et al.	
	181	20020021485	02-21-2002	Pilossof	
	182	20020024711	02-28-2002	Miles	
	183	20020054424	05-09-2002	Miles	
	184	20020149828	10-17-2002	Miles	
	185	20030202264	10-30-2003	Weber et al.	
	186	20030202265	10-30-2003	Reboa et al.	
	187	20030202266	10-30-2003	Ring et al.	
	188	20040080807	04-29-2004	Chen et al.	
	189	20040145049	07-29-2004	McKinnell et al.	
	190	20040147056	07-29-2004	McKinnell et al.	
	191	20040160143	08-19-2004	Shreeve et al.	
	192	20040174583	09-09-2004	Chen et al.	
	193	20040179281	09-16-2004	Reboa	
	194	20040212026	10-28-2004	Van Brocklin et al.	
	195	20040217378	11-04-2004	Martin et al.	
	196	20040217919	11-04-2004	Pichl et al.	
	197	20040218251	11-04-2004	Piehl et al.	
	198	20040218334	11-04-2004	Martin et al.	
	199	20040218341	11-04-2004	Martin et al.	
	200	20040227493	11-18-2004	Van Brocklin et al.	
	201	20040240138	12-02-2004	Martin et al.	
	202	20040245588	12-09-2004	Nikkel et al.	
	203	20050001828	01-06-2005	Martin et al.	

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	204	20050038950	02-17-2005	Adelmann	
	205	20050057442	03-17-2005	Way	
	206	20050068583	03-31-2005	Gutkowski et al.	
	207	20050069209	03-31-2005	Damera-Venkata et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T <sup>1</sup>
	208	ROC Pat Pub No 157313	05-01-1991	FSI International, Inc.		T
	209	JP 05275401 A1	10-22-1993	Yokogawa Electric Corporation		T (Abstract Only)
	210	EP 0 667 548 A1	08-16-1995	AT&T Corporation		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>1</sup>
	211	BASS, "Handbook of Optics, Volume I, Fundamentals, Techniques, and Design, Second Edition," McGraw-Hill, Inc., New York, pp. 2.29-2.36 (1995)	
	212	GILES et al., "A Silicon MEMS Optical Switch Attenuator and Its Use in Lightwave Subsystems," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 5, No. 1, pp. 18-25, (Jan./Feb. 1999).	
	213	SCHNAKENBERG et al. "TMAHW Etchants for Silicon Micromachining. 1991 International Conference on Solid State Sensors and Actuators-Digest of Technical Papers," pp. 815-818.	
	214	WILLIAMS et al., "Etch Rates for Micromachining Processing. Journal of Microelectromechanical Systems, Vol. 5, No. 4, pp. 256-259," (Dec. 1996).	
	215	WINTERS et al., "The etching of silicon with XeF <sub>2</sub> vapor," Applied Physics Letters, Vol. 34, No. 1, pp. 70-73, (Jan. 1979).	

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